AMENDED IN ASSEMBLY AUGUST 10, 2004

AMENDED IN ASSEMBLY JUNE 29, 2004

AMENDED IN ASSEMBLY JUNE 21, 2004

AMENDED IN SENATE MAY 4, 2004

AMENDED IN SENATE APRIL 12, 2004

SENATE BILL No. 1652

Introduced by Senator Murray
(Coauthor: Senator Brulte)

February 20, 2004

An act to add Section 25402.10 to*, and to add and repeal Chapter 8.4 (commencing with Section 25725) of Division 15 of,* the Public Resources Code, *to amend Sections 379.6 and 2827 of, and to repeal and add Section 383 of, the Public Utilities Code,* relating to ~~solar energy~~ *energy, and making an appropriation therefor.*

LEGISLATIVE COUNSEL'S DIGEST

SB 1652, as amended, Murray. ~~Residential~~ *Energy: residential* solar energy systems*: Solar Peak Energy Procurement Program: net energy metering*.

(1) Existing law requires a solar energy system to meet applicable standards and requirements imposed by state and local permitting authorities.

This bill would require, on and after January 1, ~~2006~~ *2010*, at least ~~15%~~ *5%* of all single-family residences, constructed as part of a development of at least 25 homes that is intended or offered for sale, to be constructed with a solar ~~photovoltaic~~ energy system*, as defined,* for

each unit. The bill would require that percentage to increase by ~~10%~~ *5%* each year until January 1, ~~2010~~ *2019*.

~~The bill would exempt from the bill's requirements a home builder that makes a specified finding that is approved by a local agency building inspector. By requiring a local agency building inspector to determine whether to approve that finding, the bill would impose a state-mandated local program. The bill would also exempt from its requirements climate zones 1 and 16, as specified.~~

(2) *The existing Public Utilities Act requires the Public Utilities Commission (CPUC) to require Pacific Gas and Electric Company, San Diego Gas and Electric, and Southern California Edison to identify a separate electrical rate component to fund programs that enhance system reliability and provide in-state benefits. This rate component is a nonbypassable element of local distribution and collected on the basis of usage. The funds are collected to support cost-effective energy efficiency and conservation activities, public interest research and development not adequately provided by competitive and regulated markets, and renewable energy resources. Existing law requires the State Energy Resources Conservation and Development Commission (Energy Commission) to transfer funds collected by electrical corporations for in-state operation and development of existing and new and emerging renewable resources technologies into the Renewable Resource Trust Fund, to fund specified programs. Existing law requires the Energy Commission to transfer funds collected by electrical corporations for public interest research and development not adequately provided by competitive and regulated markets to the Public Interest Research, Development, and Demonstration Fund, to fund specified programs.*

Existing law requires the Energy Commission to expand and accelerate development of alternative sources of energy, including solar resources. Existing law requires the Energy Commission, until January 1, 2006, and to the extent that funds are appropriated for that purpose in the annual Budget Act, to implement a grant program to accomplish specified goals, including making solar energy systems cost competitive with alternate forms of energy.

This bill would require the CPUC to require that San Diego Gas and Electric Company, Southern California Edison Company, and Pacific Gas and Electric Company (electrical corporations) identify a solar energy charge as a separate rate component, to be collected as a nonbypassable element of the local distribution service and on the basis

of usage. The bill would require that the electrical corporations collect the solar energy charge commencing January 1, 2005, through December 31, 2014, for a cumulative total of $100,000,000 per year. The solar energy charge would be collected only from residential customers through December 31, 2009, and commencing January 1, 2010, through December 31, 2014, would be collected from all customer classes. The bill would establish the Solar Peak Energy Procurement Program Fund and require that the moneys collected as a result of the solar energy charge be transferred to the fund at least quarterly. The bill would require the Energy Commission until January 1, 2015, to award rebates to support the installation of solar energy systems, as defined, on new residential construction.

(3) By imposing the solar energy charge, the bill would result in a change in state taxes for the purpose of increasing state revenues within the meaning of Section 3 of Article XIII A of the California Constitution, and thus would require for passage the approval of $^2/_3$ of the membership of each house of the Legislature.

(4) Existing law requires every electric service provider, as defined, to develop a standard contract or tariff providing for net energy metering, and to make this contract available to eligible customer-generators, upon request. Existing law requires every electric service provider, upon request, to make available to eligible customer-generators contracts for net energy metering on a first-come-first-served basis until the time that the total rated generating capacity used by eligible customer-generators exceeds 0.5% of the electric service provider's aggregate customer peak demand.

This bill would require that every electric service provider, upon request, to make available to eligible customer-generators contracts for net energy metering on a first-come-first-served basis until the time that the total rated generating capacity used by eligible customer-generators exceeds 5% of the electric service provider's aggregate customer peak demand.

(5) Existing law requires the CPUC, in consultation with the Energy Commission, to administer, until January 1, 2008, a self-generation incentive program for distributed generation resources.

This bill would require the CPUC, in consultation with the Energy Commission, to administer, until January 1, 2015, a self-generation incentive program for distributed generation resources.

(6) This bill would delete provisions of the Public Utilities Code that are no longer operative.

(7) Under existing law, a violation of the Public Utilities Act or an order or direction of the commission is a crime.

Because certain provisions of this bill are within the act and require action by the commission to implement its requirements, a violation of these provisions would impose a state-mandated local program by creating a new crime.

(8) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

Vote: ~~majority~~ *2/3*. Appropriation: ~~no~~ *yes*. Fiscal committee: yes. State-mandated local program: yes.

The people of the State of California do enact as follows:

SECTION 1. The Legislature finds and declares all of the following:

~~(a) Air pollution is a serious and widespread public health and environmental problem in California, with economic ramifications.~~

~~(b) California has ongoing energy affordability and reliability issues. The construction of new centralized powerplants comes at a great cost to the state and to ratepayers in the form of increased air pollution, and expensive construction, permitting, and infrastructure costs.~~

~~(c) California currently relies on natural gas for the bulk of its electricity needs, and increasing energy demands put pressure on limited natural gas supplies and threaten rising costs.~~

~~(d) More than 150,000 homes will be built annually in California in the coming years, threatening energy reliability and affordability, and increasing air pollution.~~

~~(e) California has vast solar energy resources that can be harnessed to generate electricity and reduce the consumption of natural gas.~~

~~(f) Installing solar photovoltaic home energy systems on new homes can significantly improve air quality by offsetting energy~~

~~otherwise provided by fossil-fuel powerplants and by preventing the need to build new fossil-fuel powerplants to meet growing energy needs.~~

~~(g) Increasing California's solar power market will also bring additional manufacturing, installation, and sales jobs to the state at a higher rate than natural gas powerplants.~~

~~(h) Ultraclean distributed generation, such as solar photovoltaic systems, benefits all ratepayers by preventing the need for expensive infrastructure associated with centralized powerplants.~~

~~(i) Installing solar energy systems during construction is a cost-effective way of realizing all of the benefits of this technology.~~

(a) California has a pressing need to procure a steady supply of affordable and reliable peak electricity.

(b) Solar generated electricity is uniquely suited to California's needs because it produces electricity when California needs it most, during the peak demand hours in summer afternoons when the sun is brightest and air-conditioners are running at capacity.

(c) Procuring solar electric generation capacity to meet peak electricity demand increases system reliability and decreases California's dependence on unstable fossil fuel supplies. Promoting solar generation of electricity is comparable in result, to promoting energy efficiency measures.

(d) Solar generated electricity diversifies California's energy portfolio. California currently relies on natural gas for the bulk of its electricity generation needs. Increasing energy demands place increasing pressure on limited natural gas supplies and threaten to raise costs.

(e) More than 150,000 homes will be built annually in California in the coming years, challenging energy reliability and affordability, and increasing air pollution, a widespread public health problem that burdens all Californians.

(f) Investing in residential solar electricity generation installations today will lower the cost of solar generated electricity for all Californians in the future. In 10 years, solar peak electric generation can be procured without the need for rebates. Japan implemented a similar targeted program several years ago. Today, the number of solar generation installations in Japan continues to grow even though the subsidy program sunsets this year.

(h) Increasing California's solar electricity generation market will also bring additional manufacturing, installation, and sales jobs to the state at a higher rate than most conventional energy production sources.

(i) The Solar Peak Energy Procurement Program is a cost-effective investment by ratepayers in peak electricity generation capacity and ratepayers will recoup the cost of their investment through lower rates as a result of avoiding purchases of electricity at peak rates, with additional system reliability and pollution reduction benefits.

SEC. 2. Section 25402.10 is added to the Public Resources Code, to read:

25402.10. (a) For purposes of this section~~:~~

~~(1) "Solar photovoltaic system" means any photovoltaic solar collector or other photovoltaic solar energy device whose primary purpose is to provide for the collection, storage, and distribution of solar energy for electric generation.~~

~~(2) "Solar energy system" does not include an electric plant as defined by Section 217 of the Public Utilities Code.~~ *"solar energy system" means a photovoltaic solar collector or other photovoltaic solar energy device that has a primary purpose of providing for the collection, storage, and distribution of solar energy for the generation of electricity, and that produces an average of at least two kilowatts alternating current of electricity.*

(b) ~~(1) On and after January 1, 2006, a minimum of 15~~ *On and after January 1, 2010, a minimum of 5* percent of single-family residences constructed as part of a development of at least 25 homes per project that is intended or offered for sale shall be constructed with solar photovoltaic energy systems that produce an average of at least two kilowatts alternating current of ~~electrical power~~ *electricity* per residence. This minimum percentage of single-family residences shall increase by an additional ~~10~~ *5* percent each year until January 1, ~~2010.~~ *2019. The commission shall develop and propose revisions to the California Building Energy Efficiency Standards in Title 24 of the California Code of Regulations to take effect on and after January 1, 2010, to incorporate the requirements of this subdivision.*

~~(2) A home builder is exempt from paragraph (1) if the home builder finds, based on substantial evidence, and the local agency building inspector approves that finding, that unique physical~~

~~conditions exist that make it impractical to incorporate the required percentage of solar photovoltaic energy systems into the development.~~

~~(c) Subdivision (b) shall not prevent an owner or developer from installing both solar photovoltaic and solar thermal systems in excess of this minimum standard.~~

~~(d) This section does not apply to climate zones 1 and 16, as defined by the commission in Section 101 of Subchapter 1 of Part 6 of Title 24 of the California Code of Regulations.~~

~~SEC. 3. It is the intent of the Legislature to create an incentive to both promote the use of solar energy systems in new housing and reduce overall energy consumption from the grid by directing the State Energy Resources Conservation and Development Commission to partially count energy generation from solar energy systems towards the energy conservation compliance budget for a new home.~~

~~SEC. 4. No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution because a local agency or school district has the authority to levy service charges, fees, or assessments sufficient to pay for the program or level of service mandated by this act, within the meaning of Section 17556 of the Government Code.~~

(c) Beginning January 1, 2006, solar energy systems shall be offered to all customers who enter into negotiations to purchase a single-family residence constructed as part of a development of 25 or more single-family residences.

SEC. 3. Chapter 8.4 (commencing with Section 25725) is added to Division 15 of the Public Resources Code, to read:

CHAPTER 8.4. SOLAR PEAK ENERGY PROCUREMENT PROGRAM

25725. As used in this chapter, the following terms have the following meaning:

(a) "kW" means kilowatts as measured from the alternating current side of the solar energy system inverter consistent with Section 223 of Title 15 of the United States Code.

(b) "Solar energy system" means a photovoltaic solar collector or other photovoltaic solar energy device that has a primary purpose of providing for the collection, storage, and distribution

of solar energy for the generation of electricity, and that produces an average of at least 2 kW alternating current of electricity.

25726. (a) The Solar Peak Energy Procurement Program Fund is hereby created in the State Treasury, to be used to contribute to the purchase of solar energy systems that generate electricity during periods of peak demand. Any revenues that are deposited in the fund shall not be used by the state for any purpose other than as specified in this chapter.

(b) The following accounts are hereby established within the Solar Peak Energy Procurement Program Fund:

(1) San Diego Gas and Electric Company Distribution Area Account.

(2) Southern California Edison Company Distribution Area Account.

(3) Pacific Gas and Electric Company Distribution Area Account.

(c) The money in the fund may be expended for the state's administration of this chapter only upon appropriation by the Legislature in the annual Budget Act.

(d) Solar energy charge revenues collected by electrical corporations pursuant to Section 383 of the Public Utilities Code shall be transmitted to the commission at least quarterly for deposit in the Solar Peak Energy Procurement Program Fund. After setting aside in the fund money that may be needed for expenditures authorized by the annual Budget Act in accordance with subdivision (c), the Treasurer shall immediately deposit money received pursuant to this section into the fund accounts created pursuant to subdivision (b) in proportions designated by the commission for the current calendar year. Notwithstanding Section 13340 of the Government Code, the moneys in the fund and the accounts within the fund that are not subject to appropriation pursuant to subdivision (c), are hereby continuously appropriated to the commission without regard to fiscal year for the purposes enumerated in this chapter.

(e) Upon notification by the commission, the Controller shall pay all awards of the money in the accounts created pursuant to subdivision (b) for the purposes enumerated in this chapter. The eligibility of each award shall be determined solely by the commission based on the procedures it adopts under this chapter. Based on the eligibility of each award, the commission shall also

establish the need for a multiyear commitment to any particular award and so advise the Department of Finance. Eligible awards submitted by the commission to the Controller shall be accompanied by information specifying the account from which payment should be made and the amount of each payment; a summary description of how payment of the award furthers the purposes enumerated in this chapter; and an accounting of future costs associated with any award or group of awards known to the commission to represent a portion of a multiyear funding commitment.

(f) The commission may transfer funds between accounts for cashflow purposes, provided that the balance due each account is restored and the transfer does not adversely affect any of the accounts.

25727. (a) The commission shall award rebates to support the installation of solar energy systems on new residential construction, and shall adopt a schedule of declining rebates for this purpose, subject to all of the following:

(1) The maximum rebate in year one shall be no greater than two dollars and eighty cents ($2.80) per watt, and shall decline each year thereafter at a rate of no less than 7 percent per year.

(2) The rebate amount shall be zero as of January 1, 2015.

(3) The schedule shall be made available to the public no less than six months in advance of its adoption and the commencement of the first decline in rebates.

(b) Consistent with the provisions of subdivision (a), the Energy Commission may adjust the schedule based on changing market conditions and other factors.

(c) Solar energy systems eligible for rebates pursuant to this chapter shall be no greater than 3 kW in generating capacity. The commission may allow for rebates for systems up to 5 kW in generating capacity, up to an annual cap of 15 megawatts.

25728. The commission shall do all the following:

(a) Examine financing options that could lower solar energy system financing costs to the homeowner. The commission shall examine wholesale and retail mortgage markets, and other issues that it deems appropriate. The commission shall submit a report of its findings and recommendations to the legislature and the Governor no later than June 1, 2005.

(b) Establish conditions on rebate awards to builders that require appropriate siting and high-quality installation of solar energy systems.

(c) Evaluate options to encourage optimal solar energy system performance, including, but not limited to, in-home performance meters.

(d) Acquire, if determined to be necessary, appropriate technical and administrative services or expertise to support the California Million Solar Homes program.

(e) Adopt, if determined to be necessary, additional guidelines for the implementation of this article.

25729. This chapter shall remain in effect only until January 1, 2015, and as of that date is repealed, unless a later enacted statute, that is enacted before January 1, 2015, deletes or extends that date.

SEC. 4. Section 379.6 of the Public Utilities Code is amended to read:

379.6. (a) The commission, in consultation with the State Energy Resources Conservation and Development Commission, shall until January 1, ~~2008~~ *2015*, administer a self-generation incentive program for distributed generation resources, in the same form as exists on January 1, 2004.

(b) Notwithstanding subdivision (a), the self-generation incentive program shall do all of the following:

(1) Commencing January 1, 2005, require all combustion-operated distributed generation projects using fossil fuels to meet an oxides of nitrogen (NO_x) emissions rate standard of 0.14 pounds per megawatthour to be eligible for self-generation rebates.

(2) Commencing January 1, 2007, require all combustion-operated distributed generation projects using fossil fuels to meet an oxides of nitrogen (NO_x) emissions rate standard of 0.07 pounds per megawatthour and a minimum efficiency of 60 percent, to be eligible for self-generation rebates. A minimum efficiency of 60 percent shall be measured as useful energy output divided by fuel input. The efficiency determination shall be based on 100 percent load.

(3) Combined heat and power units that meet the 60 percent efficiency standard may take a credit to meet the applicable oxides of nitrogren (NO_x) emission standard of 0.14 pounds per

megawatthour or 0.07 pounds per megawatthour. Credit shall be at the rate of one megawatthour for each 3.4 million British Thermal Units (BTUs) of heat recovered.

(4) Provide the commission with flexibility in administering the self-generation incentive program, including, but not limited to, flexibility with regard to the amount of rebates, inclusion of other ultra clean and low emission distributed generation technologies, and evaluation of other public policy interests, including, but not limited to, ratepayers, and energy efficiency and environmental interests.

SEC. 5. Section 383 of the Public Utilities Code is repealed.

~~383. Moneys collected pursuant to paragraph (3) of subdivision (b) of Section 381 shall be transferred to a subaccount of the Energy Resources Programs Account of the California Energy Resources Conservation and Development Commission to be held until further action by the Legislature for purposes of:~~

~~(a) Supporting the operation of existing and the development of new and emerging in-state renewable resource technologies.~~

~~(b) Supporting the operations of existing renewable resource generation facilities which provide fire suppression benefits, reduce materials going into landfills, and mitigate the amount of open-field burning of agricultural waste.~~

~~(c) Supporting the operations of existing, innovative solar thermal technologies that provide essential peak generation and related reliability benefits.~~

SEC. 6. Section 383 is added to the Public Utilities Code, to read:

383. (a) The commission shall require San Diego Gas and Electric Company, Southern California Edison Company, and Pacific Gas and Electric Company to identify a solar energy charge as a separate rate component. The solar energy charge shall be a nonbypassable element of the local distribution service and collected on the basis of usage, to fund the Solar Peak Energy Procurement Program Fund.

(b) The commission shall order San Diego Gas and Electric Company, Southern California Edison Company, and Pacific Gas and Electric Company to collect the solar energy charge commencing January 1, 2005, through December 31, 2014, to fund the Solar Peak Energy Procurement Program for a cumulative total of one hundred million dollars ($100,000,000)

per year. Commencing January 1, 2005, through December 31, 2009, the solar energy charge shall be collected only from residential customers. Commencing January 1, 2010, through December 31, 2014, the solar energy charge shall be collected from among all customer classes.

(c) Moneys collected pursuant to subdivision (b) shall be transferred at least quarterly to the Solar Peak Energy Procurement Program Fund of the State Energy Resources Conservation and Development Commission.

(d) To ensure that the Solar Peak Energy Procurement Program established pursuant to Chapter 8.4 (commencing with Section 25725) of Division 15 of the Public Resources Code, achieves program objectives, the commission shall do all of the following:

(1) Develop, in collaboration with the State Energy Resources Conservation and Development Commission, a time-variant pricing option for net-metered customers. The commission shall structure any time-variant pricing option for net-metered customers so that ratepayers receive due value, based upon avoided costs, for their contribution to the purchase of solar energy systems.

(2) Require San Diego Gas and Electric Company, Southern California Edison Company, and Pacific Gas and Electric Company to each designate at least one employee to be accountable for solar energy system installations and operations.

(3) Require San Diego Gas and Electric Company, Southern California Edison Company, and Pacific Gas and Electric Company to each monitor and report key solar program performance and progress data to the commission in a clearly identified place on the utility's Internet Web site.

(4) Consider energy efficiency and demand-side management options, in addition to solar energy system procurement, for new residential construction. By January 1, 2006, the commission shall publish educational materials designed to demonstrate how builders may incorporate those energy efficiency measures that best complement solar homes.

(e) This section shall remain in effect only until January 1, 2015, and as of that date is repealed, unless a later enacted statute, that is enacted before January 1, 2015, deletes or extends that date.

SEC. 7. Section 2827 of the Public Utilities Code is amended to read:

2827. (a) The Legislature finds and declares that a program to provide net energy metering for eligible customer-generators is one way to encourage substantial private investment in renewable energy resources, stimulate in-state economic growth, reduce demand for electricity during peak consumption periods, help stabilize California's energy supply infrastructure, enhance the continued diversification of California's energy resource mix, and reduce interconnection and administrative costs for electricity suppliers.

(b) As used in this section, the following definitions apply:

(1) ''Electric service provider'' means an electrical corporation, as defined in Section 218, a local publicly owned electric utility, as defined in Section 9604, or an electrical cooperative, as defined in Section 2776, or any other entity that offers electrical service. This section shall not apply to a local publicly owned electric utility, as defined in Section 9604 of the Public Utilities Code, that serves more than 750,000 customers and that also conveys water to its customers.

(2) ''Eligible customer-generator'' means a residential, small commercial customer as defined in subdivision (h) of Section 331, commercial, industrial, or agricultural customer of an electric service provider, who uses a solar or a wind turbine electrical generating facility, or a hybrid system of both, with a capacity of not more than one megawatt that is located on the customer's owned, leased, or rented premises, is interconnected and operates in parallel with the electric grid, and is intended primarily to offset part or all of the customer's own electrical requirements.

(3) ''Net energy metering'' means measuring the difference between the electricity supplied through the electric grid and the electricity generated by an eligible customer-generator and fed back to the electric grid over a 12-month period as described in subdivision (h). Net energy metering shall be accomplished using a single meter capable of registering the flow of electricity in two directions. An additional meter or meters to monitor the flow of electricity in each direction may be installed with the consent of the customer-generator, at the expense of the electric service provider, and the additional metering shall be used only to provide the information necessary to accurately bill or credit the customer-generator pursuant to subdivision (h), or to collect solar or wind electric generating system performance information for

research purposes. If the existing electrical meter of an eligible customer-generator is not capable of measuring the flow of electricity in two directions, the customer-generator shall be responsible for all expenses involved in purchasing and installing a meter that is able to measure electricity flow in two directions. If an additional meter or meters are installed, the net energy metering calculation shall yield a result identical to that of a single meter. An eligible customer-generator who already owns an existing solar or wind turbine electrical generating facility, or a hybrid system of both, is eligible to receive net energy metering service in accordance with this section.

(4) ''Wind energy co-metering'' means any wind energy project greater than 50 kilowatts, but not exceeding one megawatt, where the difference between the electricity supplied through the electric grid and the electricity generated by an eligible customer-generator and fed back to the electric grid over a 12-month period is as described in subdivision (h). Wind energy co-metering shall be accomplished pursuant to Section 2827.8.

(5) ''Co-energy metering'' means a program that is the same in all other respects as a net energy metering program, except that the local publicly owned electric utility, as defined in Section 9604, has elected to apply a generation-to-generation energy and time-of-use credit formula as provided in subdivision (i).

(6) ''Ratemaking authority'' means, for an electrical corporation as defined in Section 218, or an electrical cooperative as defined in Section 2776, the commission, and for a local publicly owned electric utility as defined in Section 9604, the local elected body responsible for regulating the rates of the local publicly owned utility.

(c) (1) Every electric service provider shall develop a standard contract or tariff providing for net energy metering, and shall make this contract available to eligible customer-generators, upon request, on a first-come-first-served basis until the time that the total rated generating capacity used by eligible customer-generators exceeds ~~one-half of 1~~ *5* percent of the electric service provider's aggregate customer peak demand.

(2) On an annual basis, beginning in 2003, every electric service provider shall make available to the ratemaking authority information on the total rated generating capacity used by eligible customer-generators that are customers of that provider in the

provider's service area. For those electric service providers who are operating pursuant to Section 394, they shall make available to the ratemaking authority the information required by this paragraph for each eligible customer-generator that is their customer for each service area of an electric corporation, local publicly owned electric utility, or electrical cooperative, in which the customer has net energy metering. The ratemaking authority shall develop a process for making the information required by this paragraph available to energy service providers, and for using that information to determine when, pursuant to paragraph (3), a service provider is not obligated to provide net energy metering to additional customer-generators in its service area.

(3) Notwithstanding paragraph (1), an electric service provider is not obligated to provide net energy metering to additional customer-generators in its service area when the combined total peak demand of all customer-generators served by all the electric service providers in that service area furnishing net energy metering to eligible customer-generators exceeds ~~one-half of 1~~ *5* percent of the aggregate customer peak demand of those electric service providers.

(d) Electric service providers shall make all necessary forms and contracts for net metering service available for download from the Internet.

(e) (1) Every electric service provider shall ensure that requests for establishment of net energy metering are processed in a time period not exceeding that for similarly situated customers requesting new electric service, but not to exceed 30 working days from the date the electric service provider receives a completed application form for net metering service, including a signed interconnection agreement from an eligible customer-generator and the electric inspection clearance from the governmental authority having jurisdiction. If an electric service provider is unable to process the request within the allowable timeframe, the electric service provider shall notify both the customer-generator and the ratemaking authority of the reason for its inability to process the request and the expected completion date.

(2) Electric service providers shall ensure that requests for an interconnection agreement from an eligible customer-generator are processed in a time period not to exceed 30 working days from the date the electric service provider receives a completed

application form from the eligible customer-generator for an interconnection agreement. If an electric service provider is unable to process the request within the allowable timeframe, the electric service provider shall notify the customer-generator and the ratemaking authority of the reason for its inability to process the request and the expected completion date.

(f) (1) If a customer participates in direct transactions pursuant to paragraph (1) of subdivision (b) of Section 365 with an electric supplier that does not provide distribution service for the direct transactions, the service provider that provides distribution service for an eligible customer-generator is not obligated to provide net energy metering to the customer.

(2) If a customer participates in direct transactions pursuant to paragraph (1) of subdivision (b) of Section 365 with an electric supplier, and the customer is an eligible customer-generator, the service provider that provides distribution service for the direct transactions may recover from the customer's electric service provider the incremental costs of metering and billing service related to net energy metering in an amount set by the ratemaking authority.

(g) Each net energy metering contract or tariff shall be identical, with respect to rate structure, all retail rate components, and any monthly charges, to the contract or tariff to which the same customer would be assigned if the customer did not use an eligible solar or wind electrical generating facility, except that eligible customer-generators shall not be assessed standby charges on the electrical generating capacity or the kilowatthour production of an eligible solar or wind electrical generating facility. The charges for all retail rate components for eligible customer-generators shall be based exclusively on the customer-generator's net kilowatthour consumption over a 12-month period, without regard to the customer-generator's choice of electric service provider. Any new or additional demand charge, standby charge, customer charge, minimum monthly charge, interconnection charge, or any other charge that would increase an eligible customer-generator's costs beyond those of other customers who are not customer-generators in the rate class to which the eligible customer-generator would otherwise be assigned if the customer did not own, lease, rent, or otherwise operate an eligible solar or wind electrical generating

facility are contrary to the intent of this section, and shall not form a part of net energy metering contracts or tariffs.

(h) For eligible residential and small commercial customer-generators, the net energy metering calculation shall be made by measuring the difference between the electricity supplied to the eligible customer-generator and the electricity generated by the eligible customer-generator and fed back to the electric grid over a 12-month period. The following rules shall apply to the annualized net metering calculation:

(1) The eligible residential or small commercial customer-generator shall, at the end of each 12-month period following the date of final interconnection of the eligible customer-generator's system with an electric service provider, and at each anniversary date thereafter, be billed for electricity used during that period. The electric service provider shall determine if the eligible residential or small commercial customer-generator was a net consumer or a net producer of electricity during that period.

(2) At the end of each 12-month period, where the electricity supplied during the period by the electric service provider exceeds the electricity generated by the eligible residential or small commercial customer-generator during that same period, the eligible residential or small commercial customer-generator is a net electricity consumer and the electric service provider shall be owed compensation for the eligible customer-generator's net kilowatthour consumption over that same period. The compensation owed for the eligible residential or small commercial customer-generator's consumption shall be calculated as follows:

(A) For all eligible customer-generators taking service under tariffs employing ''baseline'' and ''over baseline'' rates, any net monthly consumption of electricity shall be calculated according to the terms of the contract or tariff to which the same customer would be assigned to or be eligible for if the customer was not an eligible customer-generator. If those same customer-generators are net generators over a billing period, the net kilowatthours generated shall be valued at the same price per kilowatthour as the electric service provider would charge for the baseline quantity of electricity during that billing period, and if the number of kilowatthours generated exceeds the baseline quantity, the excess

shall be valued at the same price per kilowatthour as the electric service provider would charge for electricity over the baseline quantity during that billing period.

(B) For all eligible customer-generators taking service under tariffs employing ‘‘time of use’’ rates, any net monthly consumption of electricity shall be calculated according to the terms of the contract or tariff to which the same customer would be assigned to or be eligible for if the customer was not an eligible customer-generator. When those same customer-generators are net generators during any discrete time of use period, the net kilowatthours produced shall be valued at the same price per kilowatthour as the electric service provider would charge for retail kilowatthour sales during that same time of use period. If the eligible customer-generator’s time of use electrical meter is unable to measure the flow of electricity in two directions, paragraph (3) of subdivision (b) shall apply.

(C) For all residential and small commercial customer-generators and for each billing period, the net balance of moneys owed to the electric service provider for net consumption of electricity or credits owed to the customer-generator for net generation of electricity shall be carried forward as a monetary value until the end of each 12-month period. For all commercial, industrial, and agricultural customer-generators the net balance of moneys owed shall be paid in accordance with the electric service provider’s normal billing cycle, except that if the commercial, industrial, or agricultural customer-generator is a net electricity producer over a normal billing cycle, any excess kilowatthours generated during the billing cycle shall be carried over to the following billing period as a monetary value, calculated according to the procedures set forth in this section, and appear as a credit on the customer-generator’s account, until the end of the annual period when paragraph (3) shall apply.

(3) At the end of each 12-month period, where the electricity generated by the eligible customer-generator during the 12-month period exceeds the electricity supplied by the electric service provider during that same period, the eligible customer-generator is a net electricity producer and the electric service provider shall retain any excess kilowatthours generated during the prior 12-month period. The eligible customer-generator shall not be owed any compensation for those excess kilowatthours unless the

electric service provider enters into a purchase agreement with the eligible customer-generator for those excess kilowatthours.

(4) The electric service provider shall provide every eligible residential or small commercial customer-generator with net electricity consumption information with each regular bill. That information shall include the current monetary balance owed the electric service provider for net electricity consumed since the last 12-month period ended. Notwithstanding this subdivision, an electric service provider shall permit that customer to pay monthly for net energy consumed.

(5) If an eligible residential or small commercial customer-generator terminates the customer relationship with the electric service provider, the electric service provider shall reconcile the eligible customer-generator's consumption and production of electricity during any part of a 12-month period following the last reconciliation, according to the requirements set forth in this subdivision, except that those requirements shall apply only to the months since the most recent 12-month bill.

(6) If an electric service provider providing net metering to a residential or small commercial customer-generator ceases providing that electrical service to that customer during any 12-month period, and the customer-generator enters into a new net metering contract or tariff with a new electric service provider, the 12-month period, with respect to that new electric service provider, shall commence on the date on which the new electric service provider first supplies electric service to the customer-generator.

(i) Notwithstanding any other provisions of this section, the following provisions shall apply to an eligible customer-generator with a capacity of more than 10 kilowatts, but not exceeding one megawatt, that receives electrical service from a local publicly owned electric utility, as defined in Section 9604, that has elected to utilize a co-energy metering program unless the electric service provider chooses to provide service for eligible customer-generators with a capacity of more than 10 kilowatts in accordance with subdivisions (g) and (h):

(1) The eligible customer-generator shall be required to utilize a meter, or multiple meters, capable of separately measuring electricity flow in both directions. All meters shall provide ''time-of-use'' measurements of electricity flow, and the customer

shall take service on a time-of-use rate schedule. If the existing meter of the eligible customer-generator is not a time-of-use meter or is not capable of measuring total flow of energy in both directions, the eligible customer-generator shall be responsible for all expenses involved in purchasing and installing a meter that is both time-of-use and able to measure total electricity flow in both directions. This subdivision shall not restrict the ability of an eligible customer-generator to utilize any economic incentives provided by a government agency or the electric service provider to reduce its costs for purchasing and installing a time-of-use meter.

(2) The consumption of electricity from the electric service provider shall result in a cost to the eligible customer-generator to be priced in accordance with the standard rate charged to the eligible customer-generator in accordance with the rate structure to which the customer would be assigned if the customer did not use an eligible solar or wind electrical generating facility. The generation of electricity provided to the electric service provider shall result in a credit to the eligible customer-generator and shall be priced in accordance with the generation component, established under the applicable structure to which the customer would be assigned if the customer did not use an eligible solar or wind electrical generating facility.

(3) All costs and credits shall be shown on the eligible customer-generator's bill for each billing period. In any months in which the eligible customer-generator has been a net consumer of electricity calculated on the basis of value determined pursuant to paragraph (2), the customer-generator shall owe to the electric service provider the balance of electricity costs and credits during that billing period. In any billing period in which the eligible customer-generator has been a net producer of electricity calculated on the basis of value determined pursuant to paragraph (2), the electric service provider shall owe to the eligible customer-generator the balance of electricity costs and credits during that billing period. Any net credit to the eligible customer-generator of electricity costs may be carried forward to subsequent billing periods, provided that an electric service provider may choose to carry the credit over as a kilowatt hour credit consistent with the provisions of any applicable tariff, including any differences attributable to the time of generation of

the electricity. At the end of each 12-month period, the electric service provider may reduce any net credit due to the eligible customer-generator to zero.

(j) A solar or wind turbine electrical generating system, or a hybrid system of both, used by an eligible customer-generator shall meet all applicable safety and performance standards established by the National Electrical Code, the Institute of Electrical and Electronics Engineers, and accredited testing laboratories such as Underwriters Laboratories and, where applicable, rules of the Public Utilities Commission regarding safety and reliability. A customer-generator whose solar or wind turbine electrical generating system, or a hybrid system of both, meets those standards and rules shall not be required to install additional controls, perform or pay for additional tests, or purchase additional liability insurance.

(k) If the commission determines that there are cost or revenue obligations for an electric corporation, as defined in Section 218, that may not be recovered from customer-generators acting pursuant to this section, those obligations shall remain within the customer class from which any shortfall occurred and may not be shifted to any other customer class. Net-metering and co-metering customers shall not be exempt from the public benefits charge. In its report to the Legislature, the commission shall examine different methods to ensure that the public benefits charge remains a nonbypassable charge.

(*l*) A net metering customer shall reimburse the Department of Water Resources for all charges that would otherwise be imposed on the customer by the commission to recover bond-related costs pursuant to an agreement between the commission and the Department of Water Resources pursuant to Section 80110 of the Water Code, as well as the costs of the department equal to the share of the department's estimated net unavoidable power purchase contract costs attributable to the customer. The commission shall incorporate the determination into an existing proceeding before the commission, and shall ensure that the charges are nonbypassable. Until the commission has made a determination regarding the nonbypassable charges, net metering shall continue under the same rules, procedures, terms, and conditions as were applicable on December 31, 2002.

(m) In implementing the requirements of subdivisions (k) and (*l*), a customer-generator shall not be required to replace its existing meter except as set forth in paragraph (3) of subdivision (b), nor shall the electric service provider require additional measurement of usage beyond that which is necessary for customers in the same rate class as the eligible customer-generator.

(n) On or before January 1, 2005, the commission shall submit a report to the Governor and the Legislature that assesses the economic and environmental costs and benefits of net metering to customer-generators, ratepayers, and utilities, including any beneficial and adverse effects on public benefit programs and special purpose surcharges. The report shall be prepared by an independent party under contract with the commission.

(o) It is the intent of the Legislature that the Treasurer incorporate net energy metering and co-energy metering projects undertaken pursuant to this section as sustainable building methods or distributive energy technologies for purposes of evaluating low-income housing projects.

SEC. 8. No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution because the only costs that may be incurred by a local agency or school district will be incurred because this act creates a new crime or infraction, eliminates a crime or infraction, or changes the penalty for a crime or infraction, within the meaning of Section 17556 of the Government Code, or changes the definition of a crime within the meaning of Section 6 of Article XIII B of the California Constitution.

O